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Ms. MARY PEYTON WALL  
BUREAU OF AIR  
SCDHEC

2600 Bull Street  
Columbia, SC 29201

2. Article Number

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PS Form 3811, July 2013

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2600 Bull Street

Columbia, SC 29201

PS Form 3800, August 2006

See Reverse for Instructions



888 Woodstock Rd Georgetown, SC 29440  
TEL: 843-546-8556 FAX: 843-546-0007

August 28, 2015

Ms. Mary Peyton Wall  
Bureau of Air  
SC Dep't of Health and Env. Control  
2600 Bull St.  
Columbia, SC 29201

Dear Ms. Wall:

Enclosed is the first-half 2015 semi-annual report for 3V inc. for the MON. If there are any questions please contact me at 843.520.5146 ([s.mcnaair@3vusa.com](mailto:s.mcnaair@3vusa.com)) and/or Vince Centioni at 843.520.5128 ([v.centioni@3vusa.com](mailto:v.centioni@3vusa.com)).

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott McNair'.

Scott McNair  
VP of Plant Management



888 Woodstock Rd Georgetown, SC 29440  
TEL: 843-546-8556 FAX: 843-546-0007

August 28, 2015

Ms. Mary Peyton Wall  
Bureau of Air  
SC Dep't of Health and Env. Control  
2600 Bull St.  
Columbia, SC 29201

Dear Ms. Wall:

Enclosed is the first-half 2015 semi-annual report for 3V inc. for the MON. If there are any questions please contact me at 843.520.5146 ([s.mcnaair@3vusa.com](mailto:s.mcnaair@3vusa.com)) and/or Vince Centioni at 843.520.5128 ([v.centioni@3vusa.com](mailto:v.centioni@3vusa.com)).

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott McNair'.

Scott McNair  
VP of Plant Management

**SUBPART FFFF (MON) COMPLIANCE  
REPORT**

Semiannual Report

for

**3V, Inc.**

Covering

Jan 1, 2015

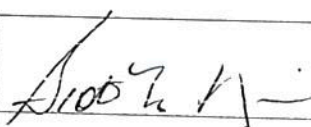
through

June 30, 2015

Submitted on August 28, 2015

## MON Compliance Report

<b>63.2520 (e) (1) Company Name and Address</b>	
Company Name	3V, Inc.
Street Address	888 Woodstock Road
City, State Zip Code	Georgetown, SC 29440
Mailing Address:	888 Woodstock Road
City, State Zip Code	Georgetown, SC 29440
Contact Person	Vince Centioni
Title	Environmental Manager
Telephone	843.520.0128
Fax	843.546.0007

<b>63.2520 (e) (2) Certification of Truth, Accuracy, and Completeness</b>	
Last Name	McNair
First Name	Scott
Title	Plant Manager
Telephone	843-520-0146
Fax	843-546-0007
<p>I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.</p>	
Name (signed)	
Name (printed)	Scott McNair
Date	08/28/2015

<b>63.2520 (e) (3) Date of Report; Reporting Period</b>	
Date Report Submitted:	August 28, 2015
Start of Reporting Period:	Jan 1, 2015
End of Reporting Period:	June 30, 2015

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  - D. Copies of Operating Logs of Sources Using CMS for Compliance (68H002 Thermal Oxidizer).
  - E. Operating Scenarios
  - F. Report for Subpart UU (LDAR Summary).



## 1. INTRODUCTION

3V Inc. is subject to the Miscellaneous Organic NESHAP 40 CFR Part 63 Subpart FFFF for organic chemical manufacturing processes in unit ID's 04, 05, 06 and 07. The facility is also subject to the Pharmaceutical MACT 40 CFR Part 63 Subpart GGG in unit ID 04. The purpose of this notification is to document the facility's compliance status with Subpart FFFF.

This report has been formatted by following the periodic report section of Subpart FFFF located in 63.2520 (e). Specific CFR citations are listed in their order with a response to each. In some cases it was convenient to prepare the information requested in a separate report. In these cases that report is provided as an attachment.

## 2. MON COMPLIANCE REPORT RESPONSES

**63.2520 (e) (4)** *Records showing that for each SSM during which excess emissions occurred, procedures specified in the SSMP were followed. Documentation of actions taken that were not consistent with SSMP. Brief description of each malfunction.*

Provided in Attachment A is a list SSM events that may have resulted in excess emissions. This list comprises all events involving a malfunction or shutdown of control devices. The facility SSM Plan requires operators to reduce production activity to minimize emissions during control device service interruption until the unit can be restarted or back-up systems can be put in place.

During the reporting period there were minor planned shutdowns for maintenance activity. Throughout these shutdowns General Services ignited the back unit 68H001-Flare and/or continued to run 68H002-TOx to remain in compliance with regulatory temperature limits and MACT standards. Detailed maintenance records are attached. See Table 63.2520(e)(5)(iii)(L).

**63.2520 (e) (5) (i)** *Statement indicating there were no deviations from any emission limit, operating limit, or work standard during the reporting period.*

Not Applicable.

**63.2520 (e) (5) (ii)** *For each deviation from an emission limit, operating limit, and work standard that occurred at an affected source where CMS is NOT used to comply with same provide the following....*

**63.2520 (e) (5) (ii) (A)** *Total operating time of the affected source during the reporting period,*

Total operating time during reporting period was 3432 hours.

**63.2520 (e) (5) (ii) (B)** *Information on number, duration, and cause of deviations, and corrective action taken for deviations including periods of SSM.*



No deviations from systems where CMS is NOT used to comply with regulations.

**63.2520 (e) (5) (ii) (C)** *Copies of operating logs of processes with batch vents from batch*

*operations on day(s) during which deviation occurred for those deviations from emission limits, operating limits, and work standards, occurring at an affected source where CMS is NOT used to comply with same. Include periods of SSM.*

Not applicable.

**63.2520 (e) (5) (iii)** *For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, include the following information:*

**63.2520 (e) (5) (iii) (A)** *Dates and times that each CMS was inoperative for sources where CMS is used to comply with emission limits and operating limits.*

See Attachment B for CMS downtime details.

**63.2520 (e) (5) (iii) (B)** *Date, time, and duration that each CMS was out-of-control.*  
No periods of CMS out-of-control during this reporting period.

**63.2520 (e) (5) (iii) (C)** *Date and time that each deviation started and stopped, and information on whether the deviation occurred during SSM, for deviations at sources where CMS is used to comply with emission limits and operating limits.*

See Attachment C.

**63.2520 (e) (5) (iii) (D)** *Summary of the total duration of deviations occurring during the reporting period, and total duration as a percent of the total operating time of the affected source where CMS is used to comply with emission limits and operating limits.*

There have been no deviations from the temperature limits listed in Table 63.2520 (e) (5) (iii) (I) below from the cryogenic condensers. The thermal oxidizer temperature was below the limit in Table 63.2520 (e) (5) a total of 18.5 hrs or 0.44% of the total operating time.

**63.2520 (e) (5) (iii) (E)** *Breakdown of total duration of deviations into startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes for deviations at sources where CMS is used to comply with emission limits and operating limits.*

See table that follows.

Table 63.2520 (e) (5) (iii) (E) Breakdown of Total Duration of Deviations into Various Categories for 68H002.					
Startup	Shutdown	Control Equipment Problems	Process Problems	Other Known Causes	Other Unknown Causes
0	0	0	0	0	0

**63.2520 (e) (5) (iii) (F)** Summary of total duration of CMS downtime during reporting period, and as a percent of the total operating time of the affected source where CMS is used to comply with emission limits and operating limits.

See table that follows.

Table 63.2520 (e) (5) (iii) (F) Summary of Total Duration of CMS Downtime.				
Device	Monitor	Parameter	Duration of downtime [hours]	Percentage of downtime [%]
68H001	68TT6001	Temperature	1.1	0.04
68H002	68TT300_3	Temperature	1.1	0.04
01CE01 & 01CE02	01 TI 26 & 01 TI 27	Temperature	1.1	0.04

**63.2520 (e) (5) (iii) (G)** Identification of each HAP known to be in the emission stream from each source where CMS is used to comply with emission limits and operating limits.

See table that follows.

Table 63.2520 (e) (5) (iii) (G) HAP's in Emission Streams.	
Device ID using CMS	List of Known HAP's in Emission Stream
68H002	Acetaldehyde, Acrylamide, Acrylonitrile, Ethyl acrylate, Methanol, Vinyl Acetate, Xylene
01CE01 & 01CE02	Methylene Chloride

**63.2520 (e) (5) (iii) (H) Brief description of process units.**

The facility consists of batch chemical manufacturing process units, wastewater treatment units, storage tanks, and air pollution control equipment for the reduction of organic HAP's including: two thermal oxidizer units (68H001 and 68H002) and a cryogenic condenser system, 01CE01, 01CE02. All batch process vents containing methylene chloride are routed to the cryogenic condenser. For the process vents, the cryogenic condenser has been determined to be a process condenser and the vents are collectively Group 2. For storage tanks the cryogenic condenser has been determined to be a control device. There are no continuous process sources.

The affected source includes the MCPU's listed in the table that follows.

<b>Table 63. 2520 (e) (5) (iii) (H) Chemical Manufacturing Processes Operating during the reporting period.</b>	
<b>MCPU</b>	<b>Chemical Manufacturing Processes</b>
04 – Alpha/Beta/Epsilon Plant	Extrapin, Tabanol K, Tabanol NA, Tabanol G, Tabanol 5, Tabanol E, and Tabanol P.
05 – Gamma Plant	Tabanol 5
06 – Delta 1 Plant	Efram CR, Tabanol 1 and Tabanol 2
07 – Delta 2 Plant	Tabanol 5

**63.2520 (e) (5) (iii) (I) Brief description of CMS:**

There were three control devices used by the facility for compliance with Subpart FFFF during the reporting period. These include flare 68H001, thermal oxidizer 68H002 and the cryogenic condensation system 01CE01 and 01CE02. Flare 68H001 serves as a back up to the thermal oxidizer for downtime due to malfunctions and routine scheduled maintenance. The table that follows lists the continuous monitoring for each device.



Table 63.2520 (e) (5) (iii) (I) Parametric Monitoring Required for Control Devices.				
Device	Parameter	Basis for Parameter	Limit	Basis for Limit
68H001	Combustion Temperature	63.988(c)(1)	1464 °F	Average temperature from test
68H002	Combustion Temperature	63.988(c)(1)	1476 °F	Average temperature from test
01CE01	Condenser temperature	63.985(c)	-49 °F	Temperature from design evaluation
01CE02	Condenser temperature	63.985(c)	-49 °F	Temperature from design evaluation

**63.2520 (e) (5) (iii) (J)** *Date of latest CMS certification or audit:*

See table that follows.

Table 63.2520 (e) (5) (iii) (J) CMS Certification/Audit Dates.		
Device ID	Monitoring Equipment	Date of Latest CMS Certification/Audit
68H002 Thermal Oxidizer	68TT300-3	Calibrated 05/19/2015
68H001 Ground Flare	68TT6001	Calibrated 05/19/2015
01CE01 Cryogenic Condenser	01TI 26	Calibrated 08/10/2015
01CE02 Cryogenic Condenser	01TI 27	Calibrated 08/10/2015

**63.2520 (e) (5) (iii) (K)** *Operating logs of processes with vents from batch processes for each day of a deviation where CMS is used to comply with deviations from emission limits and operating limits:*

See Attachment D

**63.2520 (e) (5) (iii) (L)** *Operating day average values of monitored parameters for each day during which there was a deviation for sources where CMS is used to comply with emission limits and operating limits:*

Not applicable.

Table 63.2520 (e) (5) (iii) (L) Operating Day Average Values for Each Exceedance Date.			
Date	Device	Monitor	Average, °F
No deviations from the temperature limit specified in Table 63.2520 (e) (5) (iii) (I)			

**63.2520 (e) (5) (iv)** Records associated with each calculation required by 63.2525 (e) that exceeds an applicable HAP usage or emissions threshold:

Emission calculations used to designate Group 2 process vents in the NOCS. No Group 2 process vents relying on HAP usage demonstration.

**63.2520 (e) (6)** Statement indicating no periods of out-of-control CEMS:

Not applicable. Facility does not use CEMS for compliance with Subpart FFFF.

**63.2520 (e) (7)** New operating scenarios not already submitted:

See Attachment E for new operating scenarios since last periodic report. Emissions from this source were included in the construction permit application for the installation of the cryogenic condensation system (CP-FJ).

**63.2520 (e) (8)** Records of process units added to a PUG; records of primary product re-determinations:

Not applicable.

**63.2520 (e) (9)** Records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part, and subpart F of 40 CFR 65:

Information requested in Subpart SS is provided in sections 63.2520 (e)(5)(iii) of this report. See Attachment F for Subpart UU report.

**63.2520 (e) (10)** Process changes:

Not applicable.



**ATTACHMENT A**  
**Excess Emission Events from Start Up, Shutdowns, or Malfunction**

Fail Date	Fail Time	Duration Hours	Unit	SSMP Followed?	Cause – Corrective Action
1/11/2015	0400	2.0	68H002	Yes	Shut down to replace DFA insert. Flare still online.
2/6/2015	1015	0.2	68H002	Yes	High temp. Flare online
2/10/2015	2230	16.7	68H002	Yes	High level knock out pot. Valved in Flare. Drained knock out pot. Restarted.
2/18/2015	1935	2.5	68H002	Yes	DFA full of liquid high inlet temp. Drain restarted
2/21/2015	2224	0.5	68H002	Yes	DFA plugged and sock plugged
2/23/2015	0000	1.0	68H002	Yes	High inlet temp. Restarted after inlet temp was lowered. Flare online
2/23/2015	1530	0.2	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
2/27/2015	1425	0.3	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
3/4/2015	1325	0.3	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
3/4/2015	1545	0.2	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
3/9/2015	1815	0.2	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
3/24/2015	0150	8.0	68H002	Yes	Combustion high temp. Reset and Restarted Flare online. E/I changed temp probe.
3/30/2015	1416	2.0	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
4/7/2015	1440	0.2	68H002	Yes	Combustion high temp. Reset and Restarted Flare online
4/8/2015	1400	0.3	68H002	Yes	Flame failure. Cleaned photo eye. Restarted
4/9/2015	1015	0.3	68H002	Yes	Flame failure. Restarted. Flare online.
4/9/2015	1300	0.3	68H002	Yes	Flame failure. Restarted. Flare online.
4/9/2015	1720	0.5	68H002	Yes	Flame failure. Restarted. Flare online.
4/11/2015	1000	0.3	68H002	Yes	Flame failure. Restarted. Flare online.
4/11/2015	0000	0.3	68H002	Yes	Flame failure. Restarted. Flare online.
4/11/2015	1320	12.5	68H002	Yes	Flame failure. Cleaned photo eye. Restarted
4/12/2015	0128	0.5	68H002	Yes	High flame arrestor inlet temp. Restarted. Reset combustion blower.
4/14/2015	0548	0.2	68H002	Yes	High combustion temp. Reset Restarted.
4/14/2015	1245	0.2	68H002	Yes	Flame failure. Restarted. Flare online.
4/14/2015	1650	0.2	68H002	Yes	Flame failure. Restarted. Flare online.
4/14/2015	2308	0.2	68H002	Yes	Flame failure. Restarted. Flare online. Cleaned flame detector



4/17/2015	1610	0.2	68H002	Yes	Flame failure. Restarted. Flare online.
4/17/2015	1755	1.0	68H002	Yes	VFD failure. Reset restarted.
4/20/2015	1300	0.2	68H002	Yes	High combustion temp. Reset Restarted.
4/21/2015	1235	0.5	68H002	Yes	Flame failure. Reset restarted
4/21/2015	1310	1.2	68H002	Yes	VFD failure. Reset restarted.
4/21/2015	1457	0.5	68H002	Yes	VFD failure. Reset restarted.
4/22/2015	1730	0.2	68H002	Yes	Flame failure. Reset restarted
4/25/2015	1510	0.2	68H002	Yes	Flame failure. Reset restarted
4/25/2015	1625	0.2	68H002	Yes	Flame failure. Reset restarted
4/25/2015	1910	0.2	68H002	Yes	Flame failure. Reset restarted
4/26/2015	1945	0.3	68H002	Yes	VFD failure. Restarted.
4/26/2015	2245	2.5	68H002	Yes	Flame failure and VFD failure. Cleaned back DFA Reset and restarted.
5/1/2015	0200	0.5	68H002	Yes	High combustion temp. Reset Restarted.
5/1/2015	2220	0.4	68H002	Yes	Flame failure. Reset restarted
5/4/2015	1807	0.2	68H002	Yes	Flame failure. Reset restarted
5/4/2015	1840	0.2	68H002	Yes	Flame failure. Restarted. Flare online.
5/6/2015	0000	0.2	68H002	Yes	Flame failure. Restarted. Flare online.
5/6/2015	0010	1.1	68H002	Yes	Flame failure. Restarted. Flare online.
5/6/2015	1524		68H001	Yes	Planned flare seal replacement. High co Tox online. No venting, plants aware unit down. Maintenance WO.
5/9/2015	0545	0.5	68H002	Yes	Flame failure. Restarted. Cleaned eye.
5/10/2015	0620	0.2	68H002	Yes	Flame failure. Restarted. Cleaned eye.
5/10/2015	0718		68H001	Yes	Tox on line. Fan noise. Shut down flare.
5/11/2015	0850	0.2	68H002	Yes	Flame failure. Reset restarted
5/12/2015	0500	0.6	68H002	Yes	Flame failure. Restarted. Cleaned eye.
5/12/2015	0820	0.4	68H002	Yes	Flame failure. Reset restarted
5/12/2015	0910	0.5	68H002	Yes	High inlet temp. Flare online. Restarted
5/12/2015	1300	0.3	68H002	Yes	High inlet temp. Flare online. Restarted
5/12/2015	1525	2.0	68H002	Yes	T 300-3 bad. Replaced temp transmitter.
5/12/2015	1900		68H001	Yes	Planned shut down ground flare. Tox online.
5/16/2015	2015	0.5	68H002	Yes	Flame failure. Reset restarted
5/16/2015	2309	0.5	68H002	Yes	Flame failure. Reset restarted. Flare online.
5/17/2015	0100	0.8	68H002	Yes	Flame failure. Restarted. Cleaned eye.
5/19/2015	1258	0.5	68H002	Yes	High temp. Restarted.
5/19/2015	1330	8.0	68H002	Yes	Calibrating TT. Planned shutdown. Flare online.
5/21/2015	1205	0.5	68H002	Yes	Flame failure. Reset restarted. Flare online.
5/21/2015	1330	0.2	68H002	Yes	Flame failure. Reset restarted. Flare online.
5/21/2015	1818	0.3	68H002	Yes	Low combustion air pressure. Restarted.
5/22/2015	1615	1.0	68H002	Yes	Shut down for E&I to calibrate temp TT.
5/22/2015	1700	0.3	68H002	Yes	Flame failure. Reset restarted
5/24/2015	1140	0.3	68H002	Yes	Low combustion air pressure. Restarted.
5/27/2015	0915	0.3	68H002	Yes	Flame failure. Reset restarted
5/27/2015	1325	0.2	68H002	Yes	Flame failure. Reset restarted
5/28/2015	0930	0.5	68H002	Yes	Valve change. Flare online.
5/28/2015	1440	0.2	68H002	Yes	Flame failure. Reset restarted
5/28/2015	1620	0.4	68H002	Yes	Flame failure. Clean eye. Reset restarted
5/28/2015	1930	0.3	68H002	Yes	Flame failure. Clean eye. Reset restarted



5/28/2015	2050	0.5	68H002	Yes	Flame failure. Clean eye. Reset restarted
5/28/2015	2230	0.1	68H002	Yes	Flame failure. Clean eye. Reset restarted
5/28/2015	2310	0.4	68H002	Yes	Flame failure. Adjusted air flow.
6/8/2015	1920	0.5	68H002	Yes	Flame failure. Clean eye. Reset restarted
6/8/2015	2105	0.1	68H002	Yes	Flame failure. Clean eye. Reset restarted
6/10/2015	1645	0.1	68H002	Yes	Flame failure. Clean eye. Reset restarted
6/11/2015	1345	0.5	68H002	Yes	Flame failure. Clean eye. Reset restarted
6/11/2015	1940	0.1	68H002	Yes	Flame failure. Clean eye. Reset restarted
6/11/2015	2207	0.1	68H002	Yes	Flame failure. Reset restarted
6/12/2015	0625	0.1	68H002	Yes	Flame failure. Reset restarted
6/13/2015	0640	0.2	68H002	Yes	Flame failure. Reset restarted
6/13/2015	0655	0.1	68H002	Yes	Flame failure. Reset restarted
6/15/2015	0530	0.2	68H002	Yes	Flame failure. Reset restarted
6/15/2015	1115	0.1	68H002	Yes	High flame arrestor inlet temp. Restarted. Reset combustion blower.
6/16/2015	1613	0.3	68H002	Yes	Flame failure. Reset restarted
6/17/2015	0230	0.2	68H002	Yes	Flame failure. Reset restarted
6/17/2015	0350	0.2	68H002	Yes	Flame failure. Reset restarted
6/18/2015	0840	0.3	68H002	Yes	Flame failure. Reset restarted
6/18/2015	1245	0.2	68H002	Yes	Flame failure. Reset restarted
6/18/2015	1300	0.2	68H002	Yes	Flame failure. Reset restarted
6/18/2015	2359	0.1	68H002	Yes	Flame failure. Reset restarted
6/19/2015	1040	0.3	68H002	Yes	Flame failure. Reset restarted
6/19/2015	1440	0.2	68H002	Yes	Flame failure. Reset restarted
6/19/2015	1500	0.3	68H002	Yes	Flame failure. Reset restarted
6/23/2015	1150	0.5	68H002	Yes	Flame failure. Reset restarted
6/24/2015	0210	0.3	68H002	Yes	High temp. Reset restarted. Asked plants to slow vent flow.
6/24/2015	2145	0.7	68H002	Yes	Flame failure. Reset restarted
6/28/2015	1130	0.2	68H002	Yes	Flame failure. Reset restarted
6/29/2015	0845	0.3	68H002	Yes	Flame failure. Reset restarted
6/30/2015	0300	0.2	68H002	Yes	Flame failure. Reset restarted
6/30/2015	0840	0.2	68H002	Yes	Flame failure. Reset restarted
6/30/2015	1255	0.2	68H002	Yes	Flame failure. Reset restarted
<b>01CE01 &amp; 01CE02</b>					
1/8/2015	1610	0.5	Polaris	Yes	High tank level. Steamed line. Restarted
1/8/2015	1800	0.8	Polaris	Yes	High tank level. Steamed line. Restarted.
2/25/2015	0030	1.2	Polaris	Yes	Fan full of liquid. Pumped liquid. Restarted
3/5/2015	1300	0.5	Polaris	Yes	Power outage. Restarted locally.
3/14/2015	1122	1.3	Polaris	Yes	Fan failure. Remove ice from top valve. Restarted
4/24/2015	0045	0.5	Polaris	Yes	No flow. Freeze. Restarted.
4/26/2015	0000	2.5	Polaris	Yes	Valve malfunction (XV 064). Called E&I. Found air line section damage. Repaired & Restarted.

**Notes:**

Omitted from the Attachment A. SSMP list are a number of minor events involving the cryogenic condenser (duration < 0.5 hr) that did not effect emissions. The system is passive and contains a large reserve of refrigeration capacity. Even when the unit shuts down vent gases continue to pass through the system at temperatures well below the limit.

**ATTACHMENT B****Detailed Information On CMS Downtime**

Control Device	Monitor ID	Date	Time	Duration, hrs
68H002	68TT300_3	3/12/2015	09:57	1.1
68H001	68TT6001	3/12/2015	09:57	1.1
01CE01 & 01CE02	TT-26 TT-27	3/12/2015	09:57	1.1

**Note:**

Due to power outage RS view communication was lost to the server; as a consequence all data logging for the TOX, Flare, and Cryogenic condenser stopped recording data points. During this time frame no significant TOX, Flare, and Cryo startup, shutdown, malfunctions was recorded in operational logs. The thermal oxidizer vent temperature stayed > 1500 degrees F, and the Cryogenic condenser vent temperature remained < -165 degrees F during this CMS downtime PER General Services field monitoring.



**ATTACHMENT D****Copies of Operating Logs of Sources Using CMS for Compliance**

Rhett

3/11/15

3rd

- Received Turnover from Charles
  - Shut Down Boilers Rantest on Boiler H2O Added GLIMO
  - Got Results on V584 C84 Passed X-Firing to WTP
  - Shut Down Stripper X-Fired V405 TO V584 Drain Pipe.
  - Receiving X-Fr from V441 TO V584 C90
  - Pulled V360 sample put in LAB look BAP.
  - Got Results on V360 Pulled 83X = 315 94A = 86 135m = 3 252m = 2
- will need to get Approval from Vire con Pays
- NOTE - Caught up on waste Fuel Pulled and out of Boiler.
- Shut system 2 line clear closed CHAIN VALVE
  - Heated up C303 + stripping C90

Church

03/12/2015

1st

Received Turnover from Rhett

- note: - Do not make any waste fuel X-Fers. Trying to build a level in V-381 7,000 to 8,000 gals to be shipped out.
- note: - Do golf carts in shop many more. Per Mike D. resampled V-360 & logged in lab
- results. 859cm = 3 83X = 230 135m = 6  
94A = 30
- Took Gas readings
  - filled out housekeeping form
  - Changed out sump pump @ gate house scale. (Confined space)
  - pulled cond. fan motor HVAC gate house main canteen. 1/4 hp 830 RPM
  - pulled V-586 & logged in lab
  - V-586 passed X-Fired to WTP.
  - \* - 83X high on V-360 X-Firing to WTP. shut pump off @ 3 ft
  - Installed new cond. fan motor canteen
  - Also Added 2lbs P-27



Chris

03/12/2015

210

- Received Turnover from Church
- Blew boiler down 2X"
- Finished Xfer V360 to WWTP
- Finished Xfer V586 to WWTP - blew line - C
- Started stripping C91 at C303
- Church → - Ground Floor Inlet 4" pipe before Fern is broke in two at weld - put a rig clamp and red rubber to join pipe. Shaved rob - it can be weld back together. I could get it back to shop Sat or Sun. They could weld it up Monday?
- Xfered 405 waste to V360 - Logged on
- Filled County Water Tank
- Pulled V584 C91 logged in lab
- Pulled Cooling tower sample tested logged in added 25 lbs of powder bleach to Cooling tower
- \* - Blowing down Cooling tower
- Pulled V586 C91 sample logged in lab

Rhet

3/12/15

3rd

- Received Turnover from Chris
- Blew Down Boilers
- Ran Test on Boiler H2O Added BL 1770
- Got Results on V586 C91 Passed X-Fer to WWTP
- X-Ferred V405 to V584 & Drain Dike.
- Receiving X-Fer from V405 to V584 C92
- Filled County Water Tank.
- K001 Tripped out Reset & Restarted.
- System 2 Plugged Blow Line 15 min head dropping now.
- Blew system 2 line clear closed CH4 in Valve.
- Pulled V584 sample C92 Put in Lab.
- Installed in C303 Restricting D92.



## WORK ORDER - NORMAL

Work Order: 113134

Description: Cryogenic Condenser modbus signal

Asset ID:	Model:	Sch Date: 3/5/2015
Asset:	Serial No:	Add Date: 3/5/2015 3:20:03 PM
Procedure: LOCK-OUT/TAG-OUT AND SAFETY INS	Location:	Priority: 0
Master WO ID	Building: cryo	Shift:
Requested By cwhaley	Floor:	Room: 1
Telephone:	Ext: 119	Elec Line:
Request ID: 7258	Asset ShutDn: <input checked="" type="checkbox"/>	Plant ShutDn: <input checked="" type="checkbox"/>
Warranty:	Assigned To: AL JOHNSON	

Labor:	Assigned To	Cost ID	Est Hrs	Rem Hrs	Reg	Over	Double	Other	Date
Craft Description	Labor Description								
AL JOHNSON	<input checked="" type="checkbox"/>		1.00	0.00					/ /

Task: 1 ID: 1A SAFETY SECTION Description: Lock out Tag Out Tech findings

Safety: ☒ Text: Planner, Maint or E&I Supervisor, or Technical Services Manager:Is this work covered by an RFC? ☐ No ☐ Yes RFC#:

Explain to the technician(s) what change(s) are covered by the RFC.

To be completed by the millwright:

Is this a direct change out? Same make, model, manufacturer, etc. ☐ Yes ☐ No

If no and the change is not specified in the RFC covering this job, an RFC must be generated. Do not proceed with the work

Mobile/Lift Equipment required: Is operator(s) trained on mobile/lift equipment? ☐ Yes ☐ NoForklift ☐ Yes ☐ No Man Lift ☐ Yes ☐ No Lull ☐ Yes ☐ NoBoom Truck ☐ Yes ☐ No Scissors Lift ☐ Yes ☐ No Crane ☐ Yes ☐ No

To Be Completed By Plant Supervision Prior to Work Initiation:

General:

Plant Running ☐ Yes ☐ No Other Work Adjacent to this Work ☐ Yes ☐ NoIsolated Work Area With Barricade ☐ Yes ☐ NoUnderground Hazards Identified/Marked? ☐ Yes ☐ No

Hazards: (if Yes, list Hazards in/on/around immediate area)

Flammables/Hazardous Chemicals Within \_\_\_\_\_ FT

Electrical ☐ No Yes: \_\_\_\_\_ Chemical ☐ No Yes: \_\_\_\_\_Pneumatic ☐ No Yes: \_\_\_\_\_ Mechanical ☐ No Yes: \_\_\_\_\_Temperature ☐ No Yes: \_\_\_\_\_

If permits are required, record permit number:

Line Break ☐ No Yes: \_\_\_\_\_ LO/TO ☐ No Yes: \_\_\_\_\_Hot work ☐ No Yes: \_\_\_\_\_ Confined Space ☐ No Yes: \_\_\_\_\_

Plant Supervisor Responsible for Completing Safety Instructions:

Print Name

Signature Required

Technical Findings:

Comments: Troubleshoot - cryogenic condenser control box (no modbus signal)

Procedure Comments: Problem in network, correctly.

**ATTACHMENT E****New Operating Scenarios**

MCPU	Process	Equip ID	Use	Category	Control Device
No new operating scenarios					



**ATTACHMENT F**

**Subpart UU LDAR Report**

**SEMIANNUAL COMPLIANCE REPORT FOR MON LDAR PROGRAM**  
**REPORTING PERIOD:**

**1 January to 31 July 2015**

**63.1039 Report Requirement b (1)**

<b>b(1)(i) VALVES: Unit ID's 04, 05, 06, 07, 08, 09</b>	
Monitoring Dates:	See Reporting Period.
No. Valves Monitored During Period:	112
No. Valves Leaking During Period:	0
No. of Valves - Leak Not Repaired:	0
Monitored Valve Leakage Rate:	<b>0.0%</b>
Required Monitoring Frequency:	Annually

<b>b(1)(ii) PUMPS: All Subpart FFFF Units</b>							
Date Monitored:	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
No. Pumps Monitored During Period:	53	53	51	51	51	57	<b>316</b>
No. Pumps Leaking During Period:	0	0	0	0	0	0	<b>0</b>
No. Pumps Not Monitored During Period:	0	0	0	0	0	0	<b>0</b>
Leakage Rate:	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0.0%</b>
No. of Pumps for which Leak Not Repaired:	0	0	0	0	0	0	<b>0</b>

<b>b(1)(iii) CONNECTORS</b> (In accordance with 63.2480(b)(4), the facility will comply with 63.1029)
No reporting required.

**b(1)(iv) AGITATORS All Subpart FFFF Units**

Date Monitored:	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Total
No. Agitators Monitored During Period:	20	21	20	20	20	21	122
No. Agitators Leaking During Period:	0	0	0	0	0	0	0
No. Agitators Not Monitored During Period:	0	0	0	0	0	0	0
Leakage Rate:	0%	0%	0%	0%	0%	0%	0.0%
No. of Agitators for which Leak Not Repaired:	0	0	0	0	0	0	0

**b(1)(v) COMPRESSORS**

No compressors in HAP service.

**(b)(2) Delay of Repair.**

No. of Delay of Repair Events: 0

**(b)(3) Valve Subgrouping Information of 63.1025(b)(4)(1)**

Not Applicable

**(b)(4) PRESSURE RELIEF DEVICES GV SERVICE**

Date of Test: None

Concentration [ppm]: NA

**(b)(5) Initiation of monthly monitoring for valves:**

Not Applicable

**(b)(6) Quality improvement program for pumps**

Not required due to low leak rate for pumps.

**(b)(7) Alternative means of emission limitations.**

Pressure test report attached.

**(b)(8) No units with later compliance dates at the facility.**

**ATTACHMENT F**

**ADDENDUM 1**  
**FID MONITORING DETAIL**

# FID MONITORING DETAILS BY AREA

Jan-15

Unit ID	Pumps				Agitators			
	Tested	New Leaks	Missed	Unsafe	Tested	New Leaks	Missed	Unsafe
04 - Alpha/Beta	2	0	0	0	1	0	0	0
05 - Gamma	13	0	0	0	6	0	0	0
06 - Delta	11	0	0	0	13	0	0	0
04 - Epsilon	6	0	0	0	0	0	0	0
09 & 10 - Tank Farm	21	0	0	0	0	0	0	0
Totals	53	0	0	0	20	0	0	0
	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	

Feb-15

Unit ID	Pumps				Agitators			
	Tested	New Leaks	Missed	Unsafe	Tested	New Leaks	Missed	Unsafe
04 - Alpha/Beta	2	0	0	0	1	0	0	0
05 - Gamma	13	0	0	0	6	0	0	0
06 - Delta	11	0	0	0	14	0	0	0
04 - Epsilon	6	0	0	0	0	0	0	0
09 & 10 - Tank Farm	21	0	0	0	0	0	0	0
Totals	53	0	0	0	21	0	0	0
	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	

Mar-15

Unit ID	Pumps				Agitators			
	Tested	New Leaks	Missed	Unsafe	Tested	New Leaks	Missed	Unsafe
04 - Alpha/Beta	0	0	0	0	0	0	0	0
05 - Gamma	13	0	0	0	6	0	0	0
06 - Delta	11	0	0	0	14	0	0	0
04 - Epsilon	6	0	0	0	0	0	0	0
09 & 10 - Tank Farm	21	0	0	0	0	0	0	0
Totals	51	0	0	0	20	0	0	0
	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	

Apr-15

Unit ID	Pumps				Agitators			
	Tested	New Leaks	Missed	Unsafe	Tested	New Leaks	Missed	Unsafe
04 - Alpha/Beta	0	0	0	0	0	0	0	0
05 - Gamma	13	0	0	0	6	0	0	0
06 - Delta	11	0	0	0	14	0	0	0
04 - Epsilon	6	0	0	0	0	0	0	0
09 & 10 - Tank Farm	21	0	0	0	0	0	0	0
Totals	51	0	0	0	20	0	0	0
	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	



**May-15**

Unit ID	Pumps				Agitators			
	Tested	New Leaks	Missed	Unsafe	Tested	New Leaks	Missed	Unsafe
04 - Alpha/Beta	0	0	0	0	0	0	0	0
05 - Gamma	13	0	0	0	6	0	0	0
06 - Delta	11	0	0	0	14	0	0	0
04 - Epsilon	6	0	0	0	0	0	0	0
09 & 10 - Tank Farm	21	0	0	0	0	0	0	0
<b>Totals</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>
	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	

**Jun-15**

Unit ID	Pumps				Agitators			
	Tested	New Leaks	Missed	Unsafe	Tested	New Leaks	Missed	Unsafe
04 - Alpha/Beta	6	0	0	0	1	0	0	0
05 - Gamma	13	0	0	0	6	0	0	0
06 - Delta	11	0	0	0	14	0	0	0
04 - Epsilon	6	0	0	0	0	0	0	0
09 & 10 - Tank Farm	21	0	0	0	0	0	0	0
<b>Totals</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>
	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	

**ATTACHMENT F****ADDENDUM 2  
LEAK LOG**

LEAK LOG FOR MONITORING JAN 1, 2015 - JUNE 30, 2015						
Leak Date	Component	Equipment	Initial Reading (ppm)	Initial Attempt Date	Final Repair Date	Final Comments
2/17/2015	methylene chloride	Unit ID: 04-Gamma P-510 for V-511	visual	2/17/2015	2/17/2015	Maintenance immediately fixed seal - WO# 112831



**ATTACHMENT F****ADDENDUM 3  
PRESSURE TEST REPORT**

Annual pressure testing of storage tanks and process equipment completed during this reporting period are included in the following attachment. Any storage tank that was not tested during the first half of 2015 will be tested and reported on the next semi-annual report.

Process equipment is being checked using method 21, and the components checked are included in Subpart UU report. Pressure testing is not being used as a compliance method for process equipment.

**PRESSURE TEST REPORT FOR PERIOD JAN 1, 2015 TO JUNE 30, 2015**

Eq. ID	No. Tests	No. Fails	Facts Re DoR	Date
02TK210	26	0	main TF	weekly
03C305	1	0	a/b	5/28/2015
03D131	1	0	a/b	5/27/2015
03FP301	1	0	a/b	1/5/2015
03FP303	1	0	a/b	1/5/2015
03R101	1	0	a/b	01/05/15
03R151	1	0	a/b	5/27/2015
03R301	1	0	a/b	1/5/15
03R302A	1	0	a/b	1/5/15
03R305	1	0	a/b	1/6/15
03R307	1	0	a/b	1/5/2015
03R308	1	0	a/b	1/5/2015
03SE301	1	0	a/b	1/5/15
03SE302	1	0	a/b	1/5/15
03V323	1	0	a/b	1/6/2015
03V324A	1	0	a/b	1/6/2015
03V375	1	0	a/b	5/28/2015
03V376	1	0	a/b	5/28/2015
03VA301	1	0	a/b	1/6/2015
04R402	1	0	gamma	2/24/2015
04R403	1	0	gamma	2/11/2015
04R406	1	0	gamma	3/6/2015
04TK411	26	0	main TK farm	weekly
05C504	1	0	epsilon	1/2/2015
05C505	1	0	epsilon	1/2/2015
05TK519	26	0	main TK farm	weekly
05VA534	1	0	epsilon	1/2/2015
05V577	1	0	epsilon	1/2/2015
05V578	1	0	epsilon	1/2/2015
05V579	1	0	epsilon	1/2/2015